

Work Order ID 137188

137188

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Thursday, September 24, 2015 2:12:08 PM

Item ID: D4777-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Rod End Bearing
 Start Date: 9/23/15 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 9/23/15 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: SEP 25 2015 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4777	A

100 PURCHASING 0.00
100
 Purchasing Memo 0.00
 Purchasing Issue P/O: 29935
 Purchase Part Number: 59915K274 Supplier: Mc Master Carr
 Certificate of conformity is required

CL SEP 29 2015 6

110 Receive & Inspect for Damage & Mat'l Certs 0.00
110
 Packaging Memo 0.00
 Packaging Ensure certificate of conformity is attached

OCT 02 2015 6 DAS 6 9-89

120 QC6- Inspect dimensions to drawing 0.00
120
 QC Memo 0.00
 Quality Control

(6) 6 DAS 38 9-89 OCT 02 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

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Thursday, September 24, 2015 2:12:08 PM

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: SH127	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

6 **OCT 02 2015** **DAS 6 9-89**
ML5 **OCT 05 2015**
ML5 **OCT 05 2015**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Thursday, September 24, 2015 2:12:07 PM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
59915K274		Purchased	No			110	Each	0.0000	1	6			
59915K274									**			DAS 6 9-89	1510-02
Rod End Bearing													

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

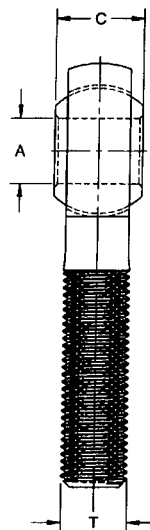
QA Closed: _____ Date: _____

Work Order update only ☐

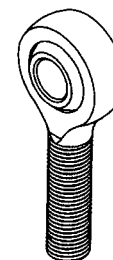
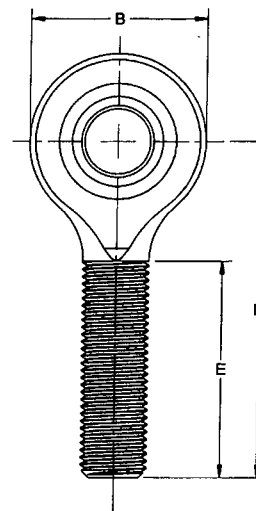
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
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Root Cause			FAULT CATEGORY						
Environment	☐	No Re-verification	☐	Pressure/Forced	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :					
Misidentified	☐	Past Due	☐						

SPECIFICATION CONTROL DRAWING



ROD END BEARING



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 137188 M/S
1509-20

DART P/N	HOUSING MATERIAL	A	B	C	D	E	T (THREAD SIZE)	SUGGESTED SUPPLIER	SUGGESTED SUPPLIER P/N
D4777-1	STAINLESS STEEL	Ø 0.38	1.00	0.500	1.94	1.25	3/8-24 (RIGHT HAND)	MC MASTER CARR	59915K274

RELEASED
2013-08-14

REV.	NEW ISSUE	DESCRIPTION	AJS	13.08.08
DESIGN	AJS		BY	DATE
DRAWN	AJS			
CHECKED				
MFG. APPR.				
APPROVED				
DE APPR.				
DATE	13.08.08			

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4777** REV. A
SHEET 1 OF 1

TITLE **ROD END BEARING** SCALE NTS

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO29935**

Purchase Order Date 9/29/2015

PO Print Date 9/29/2015

Page Number 1 of 3

Order From :

VU-MCM001

Ship To : DART AEROSPACE LTD

MCMaster-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED

Contact Name

Vendor Phone 330 995 5500

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Ship To Contact

Terms

Net 10

Ship To Phone

Currency

USD

Ship Via:

Purolator ground ppd

FOB

FCA - (Free Carrier)

Ship Acct:

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	59915K274 AS PER DWG D4777 REV. A B137188	Rod End Bearing	10/1/2015 Yes 10/1/2015		6.00 Each	\$17.14	\$102.84
Line Total:							\$102.84
2	71500-30	2791A36 REAMER	10/1/2015 Yes 10/1/2015		1.00 Each	\$36.80	\$36.80
Line Total:							\$36.80
Deliver To: J-L							
3	71500-30	60595K73 BEARING	10/1/2015 Yes 10/1/2015		2.00 Each	\$23.80	\$47.60

15/10/15
50

Note:

9/29/2015

McMaster-Carr Supply Company
200 Aurora Industrial Pkwy
Aurora, OH 44202-8087 USA
Phone: 330-995-5500 Fax: 330-995-9600
E-Mail: cle.sales@mcmaster.com
Employer Identification Number (EIN): 36-1458720

Invoice: 40091444
Purchase Order: PO29935
Release:
McMaster-Carr Number: 1350530-01

ORIGINAL COMMERCIAL
INVOICE
CERTIFICATE OF ORIGIN

Ultimate Destination:
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Shipped: 29-Sep-2015 FOB: ORIGIN
Shipper's Export Declaration (SED):
NO EEI 30.36

Intermediate Consignee:

Bill To:
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Tax Number:

Forwarding Agent:

Billing
Attention:
Shipping J-L/Luc
Attention:
Contact:

Line	Description	Qty & Unit	Unit Price	Extension
1	59915K274 PTFE-Lined Stainless Steel Ball Joint Rod End, 3/8"-24 Right-Hand Male Shank, 3/8" Ball ID, 1-1/4" L Thread Country of Origin: United States Schedule B #: 848330 ECCN #: EAR99 NLR	6 EA	\$17.14	\$102.84
2	2791A36 Cobalt Steel Oversize/Undersize Chucking Reamer, Oversize, .4385" Diameter, .3730" Shank Diameter Country of Origin: United States Schedule B #: 820760 ECCN #: EAR99 NLR	1 EA	\$36.80	\$36.80
3	60595K73 Steel Fixed-Alignment Linear Ball Bearing, Closed, for 1/2" Shaft Diameter, 1-1/4" Overall LG Country of Origin: Japan Schedule B #: 848210 ECCN #: 1C999 NLR	2 EA	\$23.80	\$47.60
4	9968K24 External Retaining Ring for Linear Bearing, for 7/8" Bearing OD Country of Origin: United States Schedule B #: 731829 ECCN #: EAR99 NLR	6 EA	\$0.49	\$2.94
5	8732T21 V Style Material Support Country of Origin: Peoples Republic of China Schedule B #: 732690 ECCN #: EAR99 NLR	1 EA	\$39.71	\$39.71
Your order is subject only to our terms and conditions, available at www.mcmaster.com or from our Sales Department.				
These commodities, technology, or software were exported from the United States in accordance with Export Administration regulations. Diversion contrary to US law is prohibited.				

Shipping Weight (in kgs): 5	Number of Packages: 1	Invoice Amounts:	Merchandise Amount: \$263.09 Canadian GST/HST: \$36.25 Shipping Charges: \$15.80 Total (In USD): \$315.14
Package Dimensions: 44 X 44 X 22 CM = .043 CUBIC M		Payment Terms: 2% discount on merchandise only if paid within 10 days, net 30 days	
Authorized Signature: 	Date: 29-Sep-2015	Remit payment to: (by mail) McMaster-Carr Supply Company PO Box 7690 Chicago, IL 60680-7690 USA	(by wire transfer) Bank of America Illinois 231 S LaSalle Chicago, IL 60697 ABA 071000039 Account 86666-02021 SWIFT BOFAUS3N
Name: Sarah Weinberg	Title: Operations Mgr.	Page 1 of 2	



Packing Lis

200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada
Attention: J-L/Luc

Purchase Order
PO29935

Order Placed By
Chantal Lavoie

McMaster-Carr Number
1350530-01

Page 1 of 1

09/29/2015

Line	Product	Ordered	Shipped
1	59915K274 PTFE-Lined Stainless Steel Ball Joint Rod End, 3/8"-24 Right-Hand Male Shank, 3/8" Ball ID, 1-1/4" L Thread	6 Each	6
2	2791A36 Cobalt Steel Oversize/Undersize Chucking Reamer, Oversize, .4385" Diameter, .3730" Shank Diameter	1 Each	1
3	60595K73 Steel Fixed-Alignment Linear Ball Bearing, Closed, for 1/2" Shaft Diameter, 1-1/4" Overall LG	2 Each	2
4	9968K24 External Retaining Ring for Linear Bearing, for 7/8" Bearing OD	6 Each	6
5	8732T21 V Style Material Support	1 Each	1
6	8803A65 High-Speed Steel Decimal Chucking Reamer, .4650" Diameter, 1-3/4" L Flute, 7" L Overall, 6 Flute	1 Each	1

10/10/11
SL